

Controlled Release Fertilizer Program Comparison																							
Cost and Formulation Options																							
<i>Assumptions:</i>																							
2016 Single-Load Prices																							
Standard Program = conventional fertilizer materials applied three times per year @ 40%-40%-20% Nitrogen rates																							
180 Lbs. N Rate/Acre Conventional Program Baseline																							
First Application of the year includes Calcium Nitrate in conventional portion of all formulations																							
* Many Thanks to Mr. Ward Gunter for his assistance in building this comparison																							
Arapaho Citrus - <u>Conventional Fertilizer Material</u> Example Program												Nutrients Per Acre											
<i>"Industry Standard" Baseline Program</i>																							
Stage	Cost/Ton	Cost/A	Rate	Formula			Mg	Mn	B	Zn	Cu	Fe	S	N	P	K	Mg	Mn	B	Zn	Cu	Fe	S
February Dry Application	\$505.00	\$164.13	650	11	1	11	2.50	1.00	0.06	0.15	0.00	0.15	2.00	72	7	72	16	6.5	0.39	0.98	0	1.0	13
May Dry Application	\$470.00	\$152.75	650	11	1	11	2.50	1.00	0.06	0.15	0.00	0.15	2.00	72	7	72	16	6.5	0.39	0.98	0	1.0	13
July Dry Application	\$470.00	\$82.25	350	11	1	11	2.50	1.00	0.06	0.15	0.00	0.15	2.00	39	4	39	9	3.5	0.21	0.53	0	0.5	7
Total Fert.		\$399.13	1,650											182	17	182	30	16.5	0.99	2.5	0	2.5	33
(4) Ground Application (\$10/Acre)	\$30.00	Fert.	\$399.13																				
(0) Air Application	\$0.00	Apps.	\$30.00																				
(0) Liquid Application (\$2.50/Acre)	\$0.00																						
Total Application Cost	\$30.00	Total Cost	\$429.13																				
Controlled Release Program Options - Equal Cost/Acre																							
Arapaho Citrus - <u>Industry Standard</u> Controlled Release Program (Equal Cost)												Nutrients Per Acre											
<i>This is a common basic Control Release Program that costs about the same as conventional</i>																							
Stage	Cost/Ton	Cost/A	Rate	Formula			Mg	Mn	B	Zn	Cu	Fe	S	N	P	K	Mg	Mn	B	Zn	Cu	Fe	S
January - March 30% (2 & 4 Month) Controlled Release N & K	\$650.00	\$154.37	475	12	1	11	3.20	1.20	0.06	0.19	0.00	0.20	1.68	57	5	52	15	6.5	0.39	0.98	0.0	1.0	13
April - September 50% (2, 4, 6 Month) Controlled Release N & K	\$690.00	\$163.88	475	12	1	12	3.20	1.20	0.06	0.19	0.00	0.20	3.43	57	5	57	15	6.5	0.39	0.98	0.0	1.0	13
October - December 30% (2 & 4 Month) Controlled Release N & K	\$620.00	\$77.50	250	11	1	11	3.20	1.20	0.06	0.19	0.00	0.20	1.54	28	3	28	8	3.5	0.21	0.53	0.0	0.5	7
Total Fert.		\$395.75	1,200											142	12	137	30	16.5	0.99	2.5	0.0	2.4	33
Percentage of Conventional Rate														78.0%									
(3) Ground Application (\$10/Acre)	\$30.00	Fert.	\$395.75																				
(0) Air Application	\$0.00	Apps.	\$30.00																				
(0) Liquid Application (\$2.50/Acre)																							
Total Application Cost	\$30.00	Total Cost	\$425.75																				

Arapaho Citrus - Controlled Release Program (6 Month) Apps													Nutrients Per Acre																				
<i>This program uses only two applications per year with a longer release schedule in the second application</i>																																	
Stage	Cost/Ton	Cost/A	Rate	Formula	Mg	Mn	B	Zn	Cu	Fe	S	N	P	K	Mg	Mn	B	Zn	Cu	Fe	S												
January - March 30% (2 & 4 Month) Controlled Release N & K	\$650.00	\$130.00	400	12 1 11	3.20	1.20	0.06	0.19	0.00	0.20	1.68	48	4	44	13	6.5	0.4	1.0	0.0	1.0	13.0												
May - July 70% (4 & 6 Month) Controlled Release Mix	\$840.00	\$273.00	650	14 3 14	3.20	1.20	0.06	0.19	0.00	0.20	3.43	91	20	91	21	10.0	0.6	1.5	0.0	1.5	20.0												
Total Fert.		\$403.00	1,050									139	24	135	30.0	16.5	1.0	2.5	0.0	2.4	33.0												
Percentage of Conventional Rate												76.6%																					
(3) Ground Application (\$10/Acre)	\$20.00	Fert.	\$403.00																														
(0) Air Application	\$0.00	Apps.	\$20.00																														
(0) Liquid Application (\$2.50/Acre)																																	
Total Application Cost	\$20.00	Total Cost	\$423.00																														
Arapaho Citrus - Controlled Release Program (6 Month) Apps													Nutrients Per Acre																				
<i>(Higher % CRF in Second App -- Our Favorite for Navels)</i>													<i>This program uses a higher percentage of CRF, with three different release schedules</i>																				
Stage	Cost/Ton	Cost/A	Rate	Formula	Mg	Mn	B	Zn	Cu	Fe	S	N	P	K	Mg	Mn	B	Zn	Cu	Fe	S												
January - March 30% (2 & 4 Month) Controlled Release N & K	\$650.00	\$146.25	450	12 1 11	3.20	1.20	0.06	0.19	0.00	0.20	1.68	54	5	50	14	6.5	0.4	1.0	0.0	1.0	13.0												
May - October 85% (2, 4, 6 Month) Controlled Release Mix	\$1,023.00	\$255.75	500	14 3 14	3.20	1.20	0.06	0.19	0.00	0.20	3.43	70	15	70	16	10.0	0.6	1.5	0.0	1.5	20.0												
Total Fert.		\$402.00	950									124	20	120	30.0	16.5	1.0	2.5	0.0	2.4	33.0												
Percentage of Conventional Rate												68.3%																					
(3) Ground Application (\$10/Acre)	\$20.00	Fert.	\$402.00																														
(0) Air Application	\$0.00	Apps.	\$20.00																														
(0) Liquid Application (\$2.50/Acre)																																	
Total Application Cost	\$20.00	Total Cost	\$422.00																														
For Comparison Only - Equal Rate of N Conventional vs. Controlled Release																																	
Arapaho Citrus - Controlled Release Program (Equal N Rate)													Nutrients Per Acre																				
<i>This program has about the same N rate as the basic conventional program</i>																																	
Stage	Cost/Ton	Cost/A	Rate	Formula	Mg	Mn	B	Zn	Cu	Fe	S	N	P	K	Mg	Mn	B	Zn	Cu	Fe	S												
January - March 30% (2 & 4 Month) Controlled Release N & K	\$650.00	\$195.00	600	12 1 11	3.20	1.20	0.06	0.19	0.00	0.20	1.68	72	6	66	19	6.5	0.4	1.0	0.0	1.0	13.0												
April - September 50% (2, 4, 6 Month) Controlled Release N & K	\$690.00	\$207.00	600	12 1 12	3.20	1.20	0.06	0.19	0.00	0.20	3.43	72	6	72	19	6.5	0.4	1.0	0.0	1.0	13.0												
October - December 30% (2 & 4 Month) Controlled Release N & K	\$620.00	\$93.00	300	11 1 11	3.20	1.20	0.06	0.19	0.00	0.20	1.54	33	3	33	10	3.5	0.2	0.5	0.0	0.5	7.0												
Total Fert.		\$495.00	1,500									177	15	171	30	16.5	0.99	2.5	0.0	2.5	33												
Percentage of Conventional Rate												97.5%																					
(3) Ground Application (\$10/Acre)	\$30.00	Fert.	\$495.00																														
(0) Air Application	\$0.00	Apps.	\$30.00																														
(0) Liquid Application (\$2.50/Acre)																																	
Total Application Cost	\$30.00	Total Cost	\$525.00																														